PHASE I ENVIRONMENTAL SITE ASSESSMENT

FORMER LANDFILL (TRACT 42)
ST. PAUL ISLAND, ALASKA

Prepared by

National Oceanic and Atmospheric Administration
7600 Sand Point Way NE
Seattle, Washington 98115

October 20, 2005

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EXECUTIVE SUMMARY

The National Oceanic and Atmospheric Administration (NOAA) chose to prepare a Phase I Environmental Site Assessment (ESA) at the Former Landfill on St. Paul Island, Alaska (Township 35 South, Range 131 West, Section 17, of the Seward Meridian, Alaska as shown on the plat of rectangular survey officially filed May 14, 1986; Tract 42; 5.78 Acres; 1976 MOU: Parcel 20; 1984 Transfer of Property Agreement (TOPA): Site 6). The Phase I ESA was conducted in accordance with American Society for Testing and Materials (ASTM) Practice E1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM 2000).

The results of this investigation represent a review of current conditions based on available information and limited observations. NOAA also performed a detailed review of historic records available from Federal and State databases, and obtained historic records information from the current property owner, NOAA.

The first known use of the subject property began in the 1940s, with the disposal of solid waste. Other uses of the subject property have included, but may not be limited, to the stockpiling of potentially petroleum-contaminated soil and the disposal of tar and tar drums.

The assessment revealed evidence of recognized environmental conditions in connection with the subject property. Specifically, NOAA determined the following conditions at the subject property:

- The property is unused at this time, other than as a closed landfill.
- NOAA intends to begin a five-year post-closure monitoring period for the landfill, which will include visual inspections, cap repairs as needed, and groundwater monitoring.
- NOAA also intends to record a deed notice for the subject property to indicate the presence of a closed landfill cell and the use of petroleum-contaminated soil as landfill capping material.

The Phase I ESA was conducted based on site boundaries recognized by NOAA as of May 9, 2005. This assessment has revealed evidence of recognized environmental conditions in connection with the property. However, these environmental conditions have been addressed by NOAA consistent with State of Alaska laws and regulations. Therefore, NOAA recommends property transfer under the TOPA once NOAA records a deed notice indicating the presence of a closed landfill cell and the use of PCS for its cap.

SECTION 1
INTRODUCTION

The National Oceanic and Atmospheric Administration (NOAA) chose to prepare a Phase I Environmental Site Assessment (ESA) at the Former Landfill in St. Paul Island, Alaska (Township 35 South, Range 131 West, Section 17, of the Seward Meridian, Alaska as shown on the plat of rectangular survey officially filed May 14, 1986; Tract 42; 5.78 Acres; 1976 MOU: Parcel 20; 1984 Transfer of Property Agreement (TOPA): Site 6). The Phase I ESA was conducted in accordance with American Society for Testing and Materials (ASTM) Practice E1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM 2000).

1.1 SCOPE OF WORK

The scope of the Phase I ESA was to identify potential areas of environmental concern associated with the subject property. Resources that NOAA used in conducting the Phase I ESA included ASTM Practice E1527-00, public documents, Federal and State database access, visual inspection of the subject and surrounding properties, and interviews with persons knowledgeable about historic activities at the subject property.

This Phase I ESA is based on available information pertinent to the subject property and results of a walk-through site inspection. Where potential areas of environmental concern are identified, this report will recommend methods for obtaining confirmatory evidence of these concerns, including additional research, investigation, or collecting soil, sediment, surface water, or groundwater samples. In addition, the scopes of Phase I ESA's do not include an evaluation of lead-based paint (LBP) or asbestos-containing building materials (ACBM) based on ASTM Practice E-1527-00. While both LBP and ACBM surveys would have been performed separate from but concurrent with this Phase I ESA, no buildings are associated with the subject property thus no building inspections were necessary.

1.2 PURPOSE

The purpose of this Phase I ESA is to identify whether recognized environmental conditions are present on the subject property, to enable NOAA to disclose all environmental conditions on the property prior to its transfer under TOPA.

Recognized environmental conditions are defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a historic release, or material threat of release of any hazardous substance or petroleum product into structures on the property or to the ground surface, subsurface soil, groundwater, or surface water of the subject or adjacent properties. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

1.3 INVOLVED PARTIES

NOAA, the trustee for the subject property, performed the Phase I ESA. NOAA files were reviewed regarding the environmental condition of the subject property. The Alaska Department of Environmental Conservation (ADEC) online Contaminated Sites Database (CSD) was reviewed with regard to state environmental records for the subject property, as well as other potential contaminated sites on St. Paul Island.

SECTION 2
PROPERTY DESCRIPTION

The following sections describe the subject property and adjacent properties as observed by NOAA personnel during the May 9, 2005 site inspection and upon review of applicable maps and records. Figure 1 depicts the geographical location of the site, and Figure 2 provides detail of the subject property. Photographic documentation of the field inspection is presented in Appendix A.

2.1 LOCATION

St. Paul Island is part of the Pribilof Islands, a small island archipelago located in the Bering Sea approximately 800 miles west-southwest of Anchorage and 300 miles north-northwest of Dutch Harbor, Alaska. The subject property is located at the northern portion of a dormant volcanic cinder cone in the northeast portion of St. Paul Island, and occupies Tract 42, all within Township 35 South, Range 131 West, Section 17, of the Seward Meridian, Alaska as shown on the plat of rectangular survey officially filed May 14, 1986. Coordinates for the subject property are latitude 57°08'54.10" North and longitude 170°13'57.76" West.

2.2 PHYSICAL SETTING

St. Paul Island covers approximately 44 square miles and was created as the result of volcanic activity. The climate of the island is classified as subpolar, with weather conditions heavily influenced by the Bering Sea. Vegetation on the island is broadly classified as moist tundra. St. Paul Island is also well known for wildlife, including fur seals, northern (Steller) sea lions, harbor seals, reindeer, and numerous bird species.

The subject property is located in the southcentral portion of St. Paul Island, south of the St. Paul Airport (Figure 2). The subject property is 5.78 acres in size and contains a closed landfill. The property also contains sand dunes. The subject property has a varied grade due to landfill use and closure activities, as well as natural wind erosion of sand dunes.

No private or public drinking water wells are located on or near the subject property. A total of eight active groundwater monitoring wells are located on or near the subject property. A total of seven

groundwater wells are used to supply water for the City of St. Paul; however, these wells are all located over one mile northwest of the subject property in the vicinity of Telegraph Hill.

SECTION 3
HISTORIC REVIEW

During a Phase I ESA, several types of records commonly are reviewed to evaluate the subject property's historic uses. Often, sources of valuable historic use data include city directories, Sanborn™ fire insurance maps, and aerial photographs. Because these types of information are limited in rural Alaska, interviews with knowledgeable persons familiar with historic site activities were relied upon to supplement available records pertaining to the subject property.

The following sections summarize city directory listings for the subject property, historical photographs, and other general information obtained during the Phase I ESA process.

3.1 CITY DIRECTORIES

No city directories were available for the subject property.

3.2 SANBORN™ FIRE INSURANCE MAPS

No Sanborn™ Fire Insurance Map coverage was available for any property on St. Paul Island, including the subject property.

3.3 HISTORICAL MAPS AND PHOTOGRAPHS

Historical maps and photographs, including aerial photographs, were obtained from records compiled from NOAA's files. Historical maps and photographs of the subject property were reviewed for the years 1918 through 2002, though only three photographs of the subject property was located. A copy of the historical photographs are included in Appendix A. Results of the historical map and photograph review are as follows:

- **2001.** This IKONOS satellite photograph shows the subject property during its active use as a landfill and before closure activities began. No features of interest are apparent.

- **2000.** This Aeromap aerial photograph shows the subject property at roughly the same state as the 2001 IKONOS satellite image. The active portion of the landfill is visible as a light-colored area at the northwestern portion of the subject property, and apparently continues onto the City of St. Paul's Ataqan property. The light-colored area may be ash from open burning, though the image resolution does not allow confirmation of this observation. No other features of interest are apparent.

- **1993.** This U.S. Geological Survey Quadrangle aerial photograph shows the subject property at roughly the same state as the 2001 IKONOS satellite image. The active portion of the landfill is visible though features are difficult to identify due to the image resolution. No other features of interest are apparent.

3.4 GENERAL

NOAA and its predecessor agency (Bureau of Commercial Fisheries), along with the City of St. Paul, used lands that adjoin the subject property as the primary landfill for St. Paul Island from the 1940s to 2004 (Columbia Environmental Sciences, Inc. [CESI] 2001a). The subject property was purportedly used for landfill operations beginning in the 1990s. Since Landfill Cell C at the subject property has been active until recently, most previous investigations have focused on adjacent landfill Cells A and B, which are to the north and northwest of Cell C and are on the City of St. Paul's Ataqan Subdivision. However, in May 2000, CESI conducted a routine inspection of Cell C and identified a tar spill in its active portion. Further investigation revealed that the spill originated from a drum located in the area. CESI subsequently uncovered and removed two buried drums. The drums, spilled tar, and a small quantity of visually stained or tar-coated soil were containerized, and later shipped for off-island disposal (CESI 2001b). CESI collected one soil sample from the small excavation created after tar and soil removal. The sample was field screened for petroleum hydrocarbons using PetroFlag®, a colorimetric test kit, with the result below the kit detection limit (CESI 2001a). No confirmation samples were analyzed for the small excavation.

NOAA and its contractors installed 17 groundwater monitoring wells within and near the subject property, decommissioning 9 of these wells during landfill closure activities. Recent groundwater sampling results indicate no contaminants exceeded their ADEC Table C cleanup levels excepting lead, which was detected above its Table C cleanup level of 15 micrograms per liter during the October 2003 quarterly sampling event (Tetra Tech 2005).

In a closure plan dated April 2, 2002, NOAA proposed to close Cell C in its entirety (Polarconsult 2002). The closure plan was approved by ADEC on August 7, 2002 (ADEC 2002). On June 30, 2003, NOAA submitted a Corrective Action Plan for closure of the landfill (NOAA 2003), which contained Addendum 1, proposing certain changes to the original closure plan, including the substitution of a boulder barrier around the perimeter of Cell C instead of a chain link fence.

During 2003 and 2004, NOAA operated a State of Alaska Department of Environmental Conservation (ADEC)-permitted, short-term PCS stockpile atop Cell C at the subject property. The City of St. Paul conducted daily waste management operations at the subject property until mid-2004. Waste management operations included the use of a "burn box" at the subject property to incinerate MSW. The City disposed burn box ash by placing it on the ground surface then covering it with clean soil. Prior to the implementation of burn box operations, MSW at the subject property was either deposited and covered with soil, or openly burned on the ground surface.

During the 2003 field season, NOAA relocated an estimated 14,736 cubic yards (CY) of MSW from Cell A, Cell B, and portions of Cell C where MSW existed within the 50-ft setback of the subject property boundary. The MSW was leveled and compacted within the southern and western portions of Tract 42 (Tetra Tech 2004). In 2003, NOAA placed in the permitted short-term stockpile at the site approximately 23,397 CY of PCS that had been excavated from St. Paul Island corrective action sites.

During the summer of 2004, ADEC approved Addendum 2 to the Corrective Action Plan wherein PCS would be used to construct a soil closure cap for Cell C instead of using clean soil (ADEC 2004a, 2004b, 2004c, 2004d; NOAA 2004a, 2004b). During June 2004, the City of St. Paul moved its MSW incineration and disposal operations from the subject property to its own property on the Ataqan Subdivision, which completely surrounds the subject property. NOAA continued to landfill inert debris at the subject property up until the completion of the Cell C landfill closure soil cap construction in the fall of 2004. During 2004, NOAA added a net additional 1,870 CY of PCS to the stockpile, and buried at the site an estimated 395 CY of debris from corrective action sites (NOAA 2005a). NOAA estimated 25,267 CY as the final volume of PCS at the short-term stockpile after PCS relocation activities.

NOAA contoured, leveled, and graded PCS remaining at the subject property over the area ensuring the closure cap had a minimum 2 feet of cover material in areas containing MSW. In addition, NOAA graded the top of the closure cap to a slope of no less than 100 to 1 (horizontal to vertical) to allow for drainage while the side slopes were graded to no steeper than 3 to 1 for both slope stability and erosion control.

Following completion of grading activities, NOAA placed large boulders along the perimeter of the cap to restrict vehicle access. NOAA initiated cap vegetation in June 2005 by planting native grass seeds, applying fertilizer, and installing erosion control matting along the side slopes of the cap. ADEC's Contaminated Sites Program approved closure of Cell C in October 2005. NOAA received verbal approval but not written approval of Cell C's closure in October 2005 from ADEC's Solid Waste program at the time of publishing this Phase I ESA (NOAA 2005b). NOAA intends to begin a five-year post-closure monitoring period later in 2005, which will include visual inspections, cap repairs as needed, and groundwater monitoring. NOAA also intends to record a deed notice for the subject property to indicate the presence of a closed landfill cell and the use of PCS for its cap (NOAA 2005a).

SECTION 4
SITE RECONNAISSANCE

During the Phase I ESA process, a site reconnaissance is conducted, and due diligence is exercised in identifying potential areas of environmental concern. The site reconnaissance focuses on evaluating the current disposition of the subject property and adjacent properties, interior storage and waste disposal areas, interior discharges, exterior storage and waste disposal areas, exterior discharges, storage tanks, and polychlorinated biphenyls (PCBs).

NOAA personnel performed the field inspection of the subject property on May 9, 2005.

4.1 CURRENT DISPOSITION OF SUBJECT PROPERTY

Purpose and Scope: During a Phase I ESA, the subject property is inspected to evaluate the general condition of the buildings and structures. General observations are made about the buildings and structures on the subject property, as well as their location, size, and apparent usage. Construction features, such as ceilings and floors, are noted, as is the presence and type(s) of light fixtures and electrical equipment. Also noted are other features and anomalies that may contribute to environmental contamination. Topography, vegetation, and proximity to thoroughfares and waterways also are observed during the inspection.

Observations: The subject property is currently a closed landfill. The only anthropogenic ("man-made") features of the subject property are the closed landfill with its perimeter boulder barrier, three groundwater monitoring wells, and the unpaved access road. There is an estimated 25,267 CY of PCS used as a landfill closure cap. No revegetation had occurred at the time of the inspection, however NOAA performed revegetation activities approximately five weeks after the Phase I ESA field inspection.

Photographs documenting the inspection can be found in Appendix A.

4.2 CURRENT DISPOSITION OF ADJACENT PROPERTIES

Purpose and Scope: During a Phase I ESA, properties adjacent to the subject property are inspected for signs or conditions that could pose significant potential for environmental contamination on the subject

property due to lateral migration of surface or subsurface contaminants from those properties. The review of adjacent properties is limited as recommended by ASTM Practice E-1527-00, and information relating to those properties provided herein should not be interpreted as comprehensive or conclusive, unless otherwise noted.

Observations: The subject property is fully surrounded by the City of St. Paul's Ataqan Subdivision, which is used for surface storage of metallic debris (closed Landfill Cell A cover area) and as a Class III landfill permitted by the State of Alaska (located partially within the former Landfill Cell B, which NOAA removed and relocated to the subject property in 2003). Municipal solid waste is incinerated by the City of St. Paul in its burnbox, with ashes placed in a disposal cell then covered with clean soil. Wood debris is open burned in the same disposal cell, with its ashes covered with clean soil. The City intends to erect two prefabricated metal buildings at the Ataqan Subdivision as support facilities for its solid waste program. The adjacent property does not have visual or olfactory signs of contamination.

4.3 INTERIOR STORAGE AND WASTE DISPOSAL AREAS

Purpose and Scope: During a Phase I ESA, interior storage areas are examined for staining or other evidence of former activities that could present a potential for environmental contamination. Containers of chemicals are examined for content and usage, and trash or rubbish accumulation is noted. In addition, designated interior disposal areas and areas conducive to waste disposal are examined for evidence of improper disposal. Finally, restrooms, drains, exterior doors, and secluded closets are visually inspected.

Observations: The subject property has no containers of chemicals.

4.4 INTERIOR DISCHARGES

Purpose and Scope: During a Phase I ESA, interior discharge areas, such as drainage areas, pipe discharges, sumps, and air emission generators, are visually examined for leakage or other evidence of potential environmental contamination.

Observations: The subject property has no structures, thus no potential for interior discharges.

4.5 EXTERIOR STORAGE AND WASTE DISPOSAL AREAS

Purpose and Scope: During a Phase I ESA, exterior storage and waste disposal areas are visually inspected for signs of releases or other environmental contamination associated with historic activities. Visual and olfactory evidence of chemical or other release are noted at designated storage areas and locations suggestive of storage operations such as concrete or asphalt pads, covered or fenced areas, pits, ponds, and lagoons.

In addition, exterior waste disposal areas are examined, including garbage cans and dumpsters. Areas of stained or off-color soil, stressed vegetation, discarded empty containers, and burned residue are inspected, as are remote or obscured areas of the property conducive to dumping.

Observations: The closed Cell C is a waste disposal area.

4.6 EXTERIOR DISCHARGES

Purpose and Scope: During a Phase I ESA, exterior subsurface structures are inspected for evidence of leaks, releases, or other environmental contamination associated with historic activities. The presence of subsurface structures that collect or contain liquid and sediment may represent a source of potential environmental contamination. Areas that are inspected if present include underground voids and vaults, drains, sumps, oil/water separators, wells, pits, ponds, lagoons, and aboveground structures indicating subsurface activity.

Observations: Waste disposed in the closed Cell C, as well as the PCS used as the Cell C cap, have the potential for discharges to both groundwater and the surface water pond located to the north of the subject property. Other than the exceedance of total lead in one monitoring well, there are no indications of exterior discharges at the subject property.

4.7 STORAGE TANKS

Purpose and Scope: The presence of current and historic aboveground storage tanks (AST) and underground storage tanks (UST) at the subject property is carefully evaluated during a Phase I ESA. Storage tanks are recognized as major potential sources of environmental contamination. Contamination of soil and/or groundwater may occur as a result of spills, overfills, or releases from tank systems. Such

contamination would require remediation, and the property owner or operator could be responsible for remediation costs.

Observations: No storage tanks, thus no signs of spills, overfills, or releases, were evident.

4.8 POLYCHLORINATED BIPHENYLS

Purpose and Scope: The subject property was inspected for items that potentially may contain PCBs such as transformers and other electrical equipment.

Observations: No equipment suspected to contain PCBs was identified at the subject property during the site reconnaissance.

SECTION 5
REGULATORY RECORDS REVIEW

A regulatory records review was conducted through phone interviews with regulatory officials and by consulting available databases provided by the U.S. Environmental Protection Agency and ADEC. According to interviews, the subject property is not part of any regulatory action. Databases that were searched include the following.

Federal Records

- **Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS):** CERCLIS contains data on potentially hazardous waste sites that have been reported to the EPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites that are either proposed to or on the National Priorities List (NPL) and sites that are in the screening and assessment phase for possible inclusion in the NPL.

- **NPL:** The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the federal Superfund program.

- **Delisted NPL:** The National Oil and Hazardous Substances Pollution and Contingency Plan establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may deleted from the NPL where no further response is appropriate.

- **Resource Conservation and Recovery Information System (RCRIS):** RCRIS includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA.

State of Alaska Records

- **Contaminated Sites Database:** The Contaminated Sites Database (CSCSL) is the State equivalent to CERCLIS. Sites contained in the CSCSL may or may not already be listed on the Federal CERCLIS list.

The subject property was only listed in the CSCSL database (Reckey Number 1994250135407). CSCSL indicates the subject property's regulatory status as No Further Remedial Action Planned. The database entry included the following summary:

"The St. Paul Island Landfill consists of cells A, B, C, an active cell, and an area used for the disposal of sewage solids. These cells consist primarily of municipal solid waste (refuse) such as paper goods, clothing, building materials, and organic material. Cells have been closed out and capped. Revegetation of cells closed out will be pending funding in 2005. No further remedial action is necessary at the site since NOAA has remove petroleum contaminated soils to the maximum extent practicable. Long-term monitoring of the groundwater will be part of NOAA's operations and maintenance requirements"

A review was conducted of available ADEC records for active listed sites within 0.25 mile of the subject property and for active sites with groundwater contamination located within 1 mile of the subject property. Results of the ADEC's CSCSL review indicate no sites meet the criteria above, and no facilities within 1 mile of the subject property were listed in the federal RCRIS database.

SECTION 6
CONCLUSIONS AND RECOMMENDATIONS

The results of this Phase I ESA represent a review of current conditions, based on available information and limited observations, as described in previous sections of this report.

The first known use of the subject property began in the 1940s, with the disposal of solid waste. The only known uses of the property have been solid waste disposal including incineration, tar and tar drum disposal (subsequently removed), and PCS stockpililng. No other activities are known to have occurred on the subject property. No structures are present at the subject property. No electrical equipment containing PCBs was identified during the site inspection activities. No stored chemicals were observed at the subject property, nor were signs of chemical releases observed.

NOAA performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00 of Township 35 South, Range 131 West, Section 17, of the Seward Meridian, Alaska as shown on the plat of rectangular survey officially filed May 14, 1986; Tract 42; 5.78 Acres; 1976 MOU: Parcel 20; 1984 Transfer of Property Agreement (TOPA): Site 6). The Phase I ESA was conducted based on site boundaries recognized by NOAA as of May 9, 2005. This assessment has revealed evidence of recognized environmental conditions in connection with the property. However, these environmental conditions have been addressed by NOAA consistent with State of Alaska laws and regulations. Therefore, NOAA staff recommends property transfer under the TOPA once NOAA records a deed notice indicating the presence of a closed landfill cell and the use of PCS for its cap.

SECTION 7
LIMITATIONS

This report was compiled based partially on information supplied to NOAA from outside sources and other information in the public domain. The conclusions and recommendations herein are based on the information NOAA obtained in compiling the report. This information is on file at NOAA's office in Seattle, Washington. NOAA makes no warranty as to the accuracy of statements made by others, which may be contained in the report, nor are any other warranties or guarantees, expressed or implied, included or intended by the report except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by other professionals performing the same or similar services.

Because the facts forming the basis for the report are subject to professional interpretation, differing conclusions could be reached. NOAA personnel performing and reviewing this Phase I ESA do not assume responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with submitted recommendations or suggestions does not assure elimination of hazards or the fulfillment of obligations under Federal, State, or local laws or any modifications or changes to such laws. None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature but shall be a representation of findings of fact from records examined.

The depth of this investigation is confined to the above-listed scope of work. Hazardous materials or coatings may be buried beneath the ground surface or concealed in an otherwise undetectable manner. NOAA has exercised due diligence in the conduct of this Phase I ESA but makes no warranty regarding the presence or absence of concealed features that could not be documented at the time the Phase I ESA was conducted.

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SECTION 8
REFERENCES

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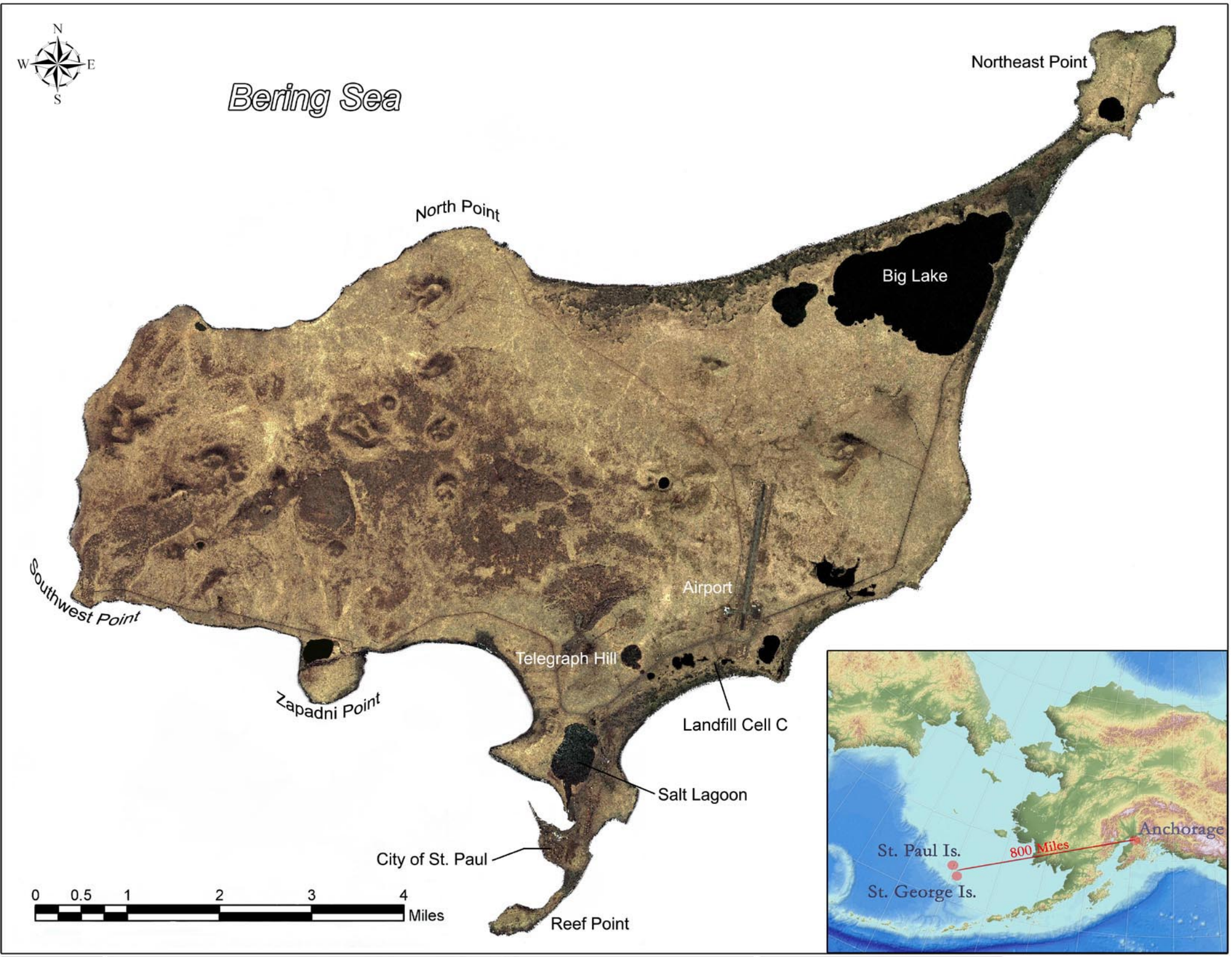

Figure	St. Paul Island and Vicinity of Subject Property Landfill Cell C St. Paul Island, Alaska	Source: Ikonos Satellite Imagery, 2001
1		

Pribilof Islands Restoration Project

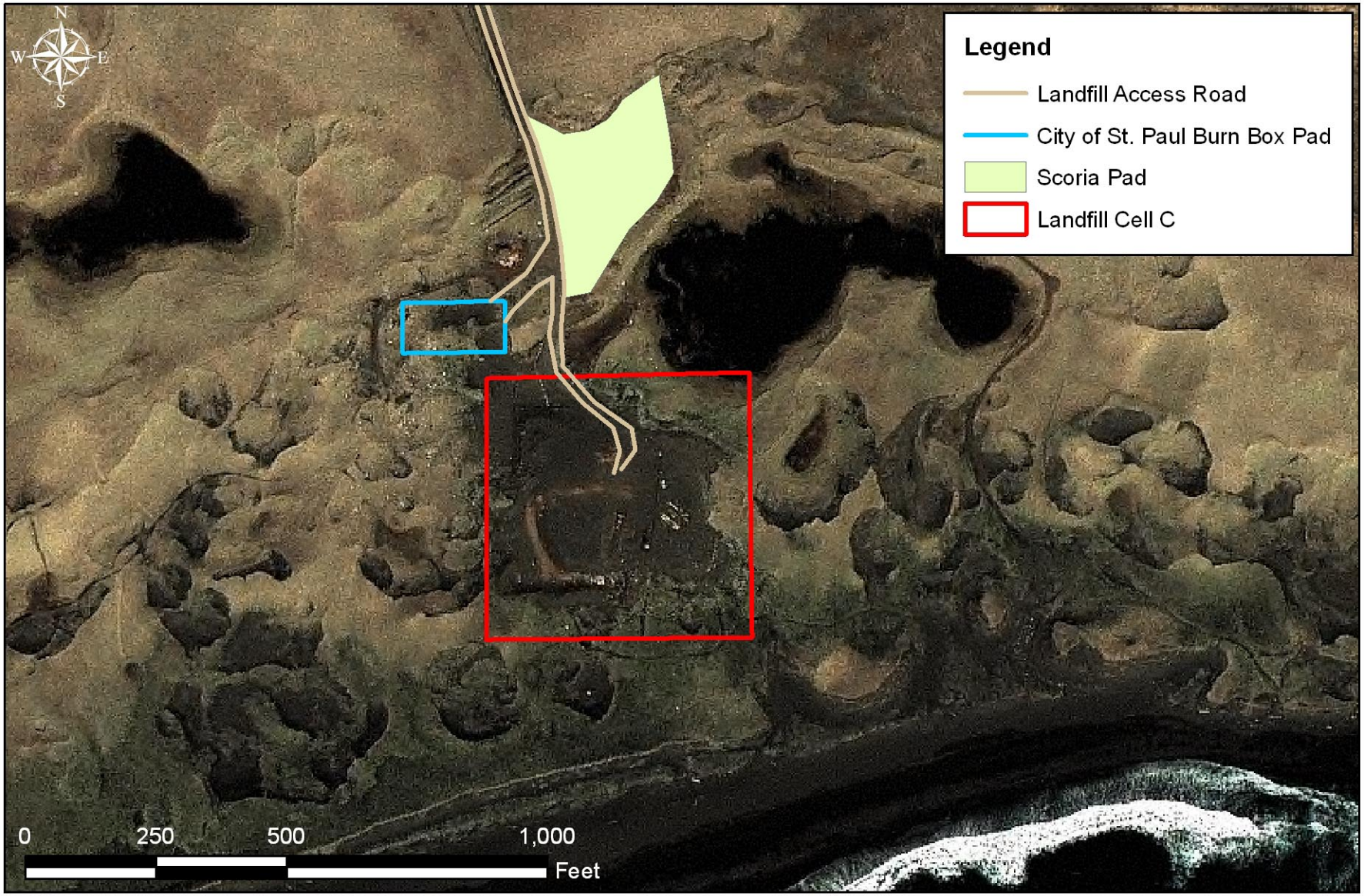

Figure 2	Subject Property Landfill Cell C St. Paul Island, Alaska	Sources: Landfill Cell C Boundary (BLM MTPs 1983), Burn Box Pad and Scoria Pad (Pribilof Project GIS 2003), Satellite Imagery (Ikonos 2001).

Pribilof Islands Restoration Project

APPENDIX A

SITE RECONNAISSANCE PHOTOGRAPHS
and
HISTORICAL PHOTOGRAPHS

Former Landfill (Tract 42)

St. Paul Island, Alaska

Photo 1. Former Landfill (Tract 42). Looking From Southeast to Northwest. NOAA. May 2005.

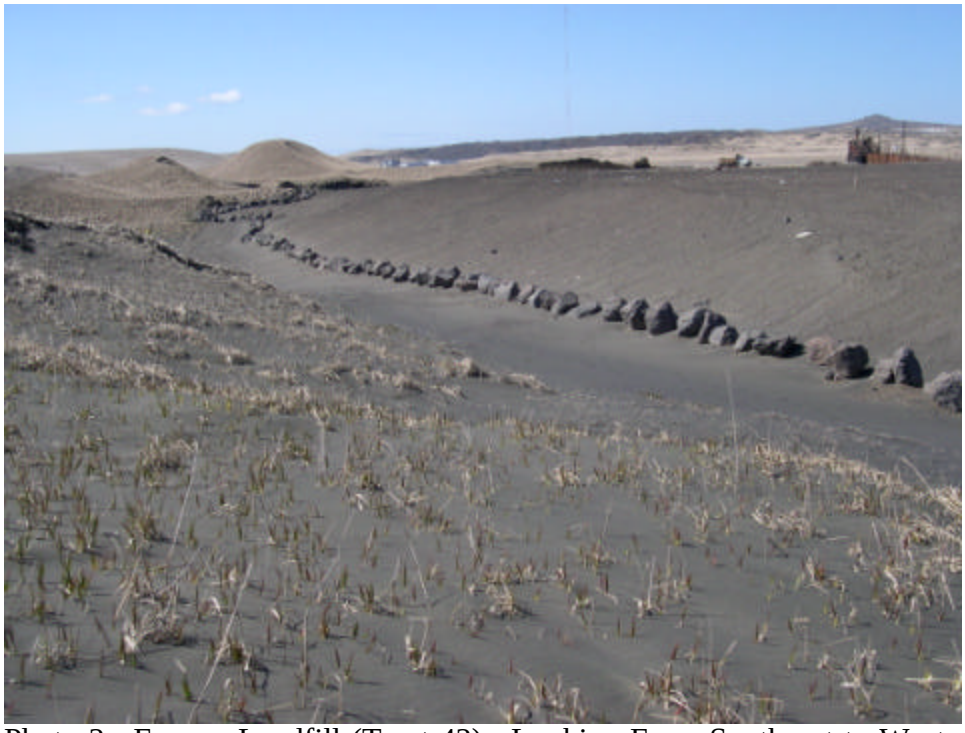

Photo 2. Former Landfill (Tract 42). Looking From Southeast to West. NOAA. May 2005.

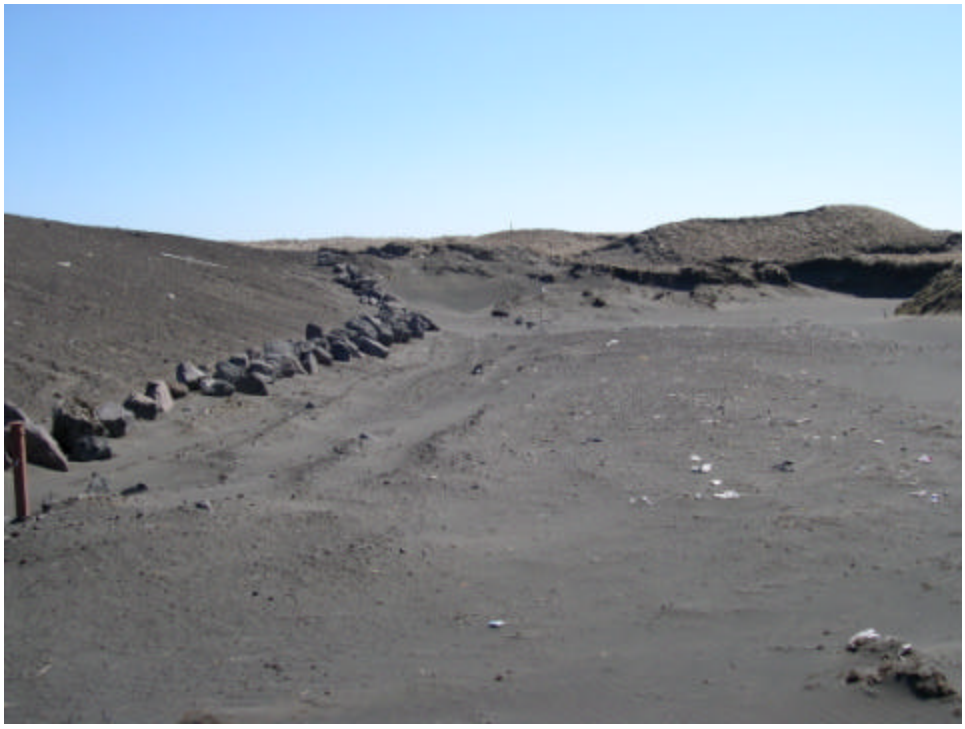

Photo 3. Former Landfill (Tract 42). Looking From Northwest to South. NOAA. May 2005.

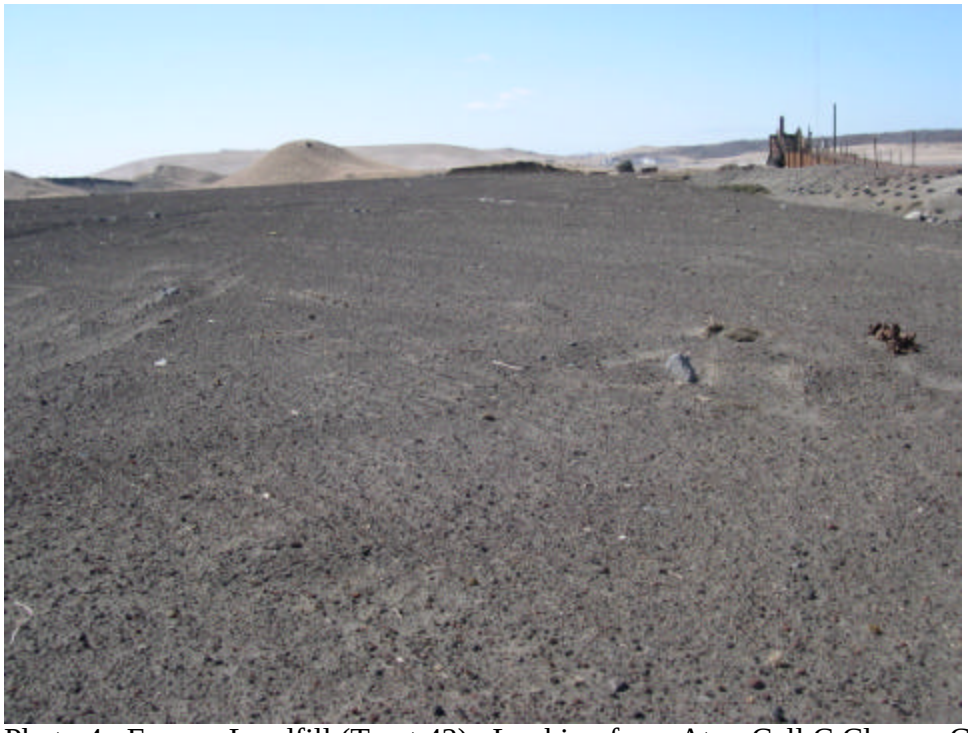

Photo 4. Former Landfill (Tract 42). Looking from Atop Cell C Closure Cap towards City of St. Paul Burnbox and Disposal Cell to Northwest. NOAA. May 2005.

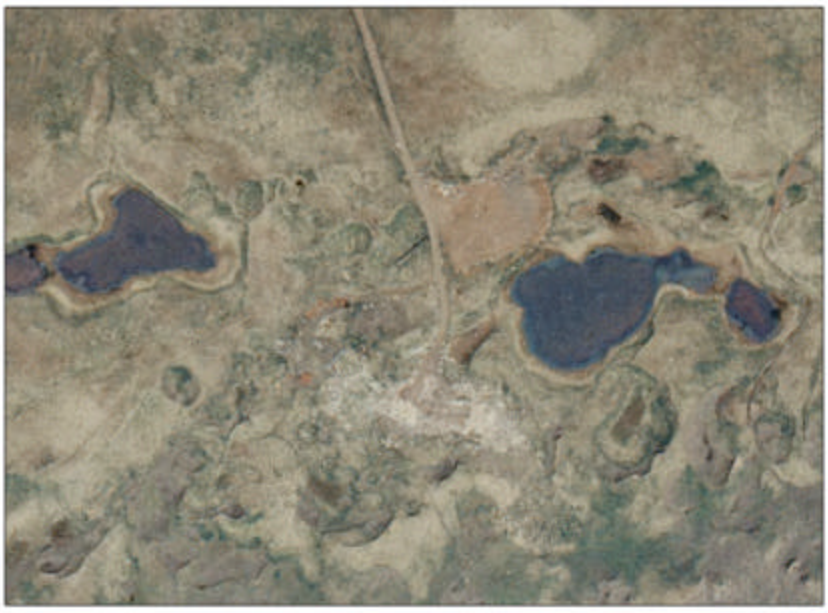

Photo 5 Former Landfill (Tract 42). Quadrangle Aerial Photograph. Note Image is Oriented with Due North at 12 O'Clock. U.S. Geological Survey. 1993.

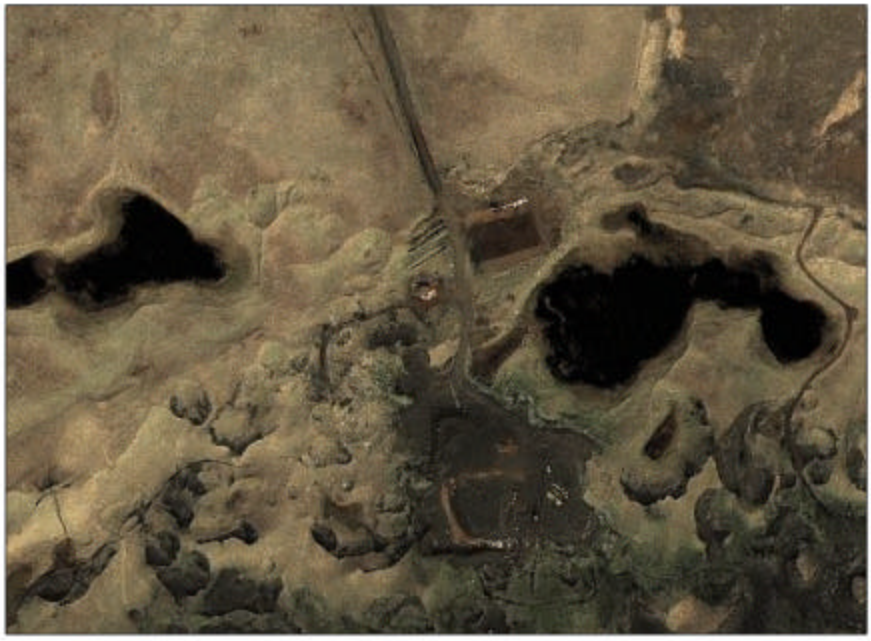

Photo 6. Former Landfill (Tract 42). IKONOS Satellite Image. Note Image is Oriented with Due North at 12 O'Clock. Space Imaging, Inc. 2001.

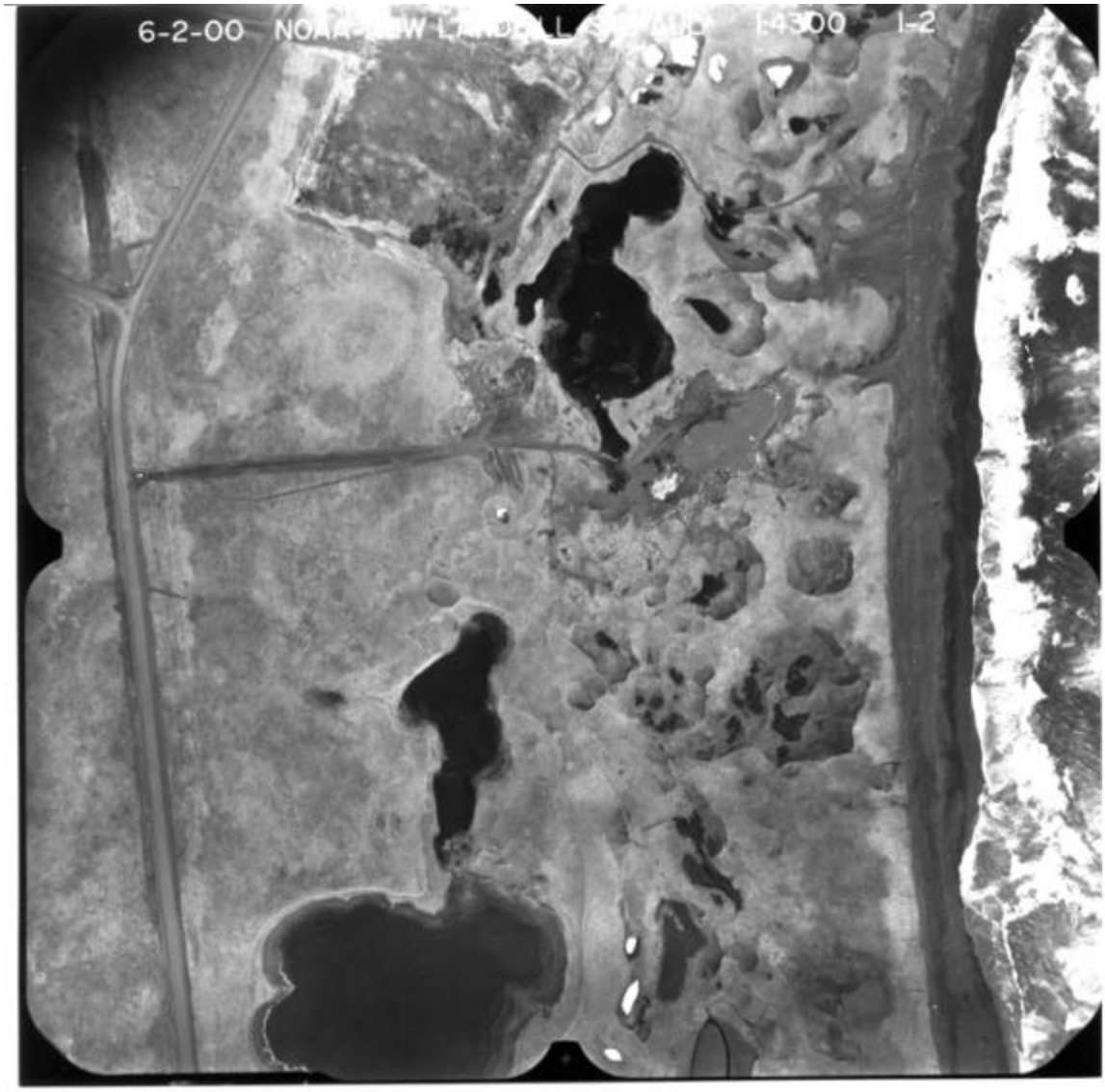

Photo 7. Former Landfill (Tract 42). Aerial Photograph. Note Image is Oriented with Due North at 9 O'Clock. Aeromap. 2000.

APPENDIX B

INSPECTOR STATEMENT OF QUALIFICATIONS

Former Landfill (Tract 42)

St. Paul Island, Alaska

NOAA INSPECTOR AND ASSISTANT QUALIFICATIONS

GREG GERVAIS, P.E.
National Oceanic and Atmospheric Administration
Environmental Engineer

Greg Gervais is an environmental engineer with over 10 years of experience designing and implementing characterizations and cleanups for hazardous, toxic, and radioactive waste (HTRW) sites. Greg has worked for NOAA's Office of Response and Restoration since 2002, functioning both as a senior environmental engineer and deputy manager for the Pribilof Project Office.

Prior to NOAA, Greg was a project manager and senior chemical engineer for the U.S. Army Corps of Engineers HTRW Design Center in Seattle. With the Corps, Greg played a variety of roles on cleanup projects executed for the Department of Defense, Department of Energy, Environmental Protection Agency, Farm Service Agency, and other federal agencies. He graduated from the Corps' Leadership Development Program in 2000.

Greg began his career as a cooperative education student and assistant remedial project manager with the Environmental Protection Agency's Superfund Program in Region 10-Seattle where he worked on a variety of cleanups throughout Washington and Idaho.

Greg has worked on civilian and military sites during his career, with contaminants such as heavy metals, polychlorinated biphenyls, petroleum-oil-lubricants, asbestos, chlorinated solvents, wood treater chemicals including polynuclear aromatic hydrocarbons, explosives residues, chlorinated and phosphorus-based pesticides, dioxins/furans, radionuclides, seal blubber, and biohazards. Past projects include the optimization of a groundwater treatment plant and leading a treatability study on the use of constructed wetlands to remediate acid mine drainage. Greg led a multidisciplinary team's review of the design for a multibillion dollar nuclear waste remediation. Greg scoped the characterization of a 3,800 acre former Army training facility, provided life-cycle environmental engineering of a former pesticides disposal test facility using the Triad Approach, and managed the conceptual design of an in-situ thermal remediation system.

He holds a Bachelor of Science degree in chemical engineering from the University of Washington and is a licensed professional engineer, registered as qualified in environmental engineering by the State of Washington. Greg holds NOAA certification as a Contracting Officer's Technical Representative. Greg is also 40-hour HAZWOPER certified, a certified AHERA Building Inspector, and a certified Lead-Based Paint inspector by EPA Region 10 and the State of Washington.

JOHN FOX
Oak Ridge Institute for Science Education
Geographer, GIS/GPS Specialist
John Fox began providing geographic information systems (GIS) support through ORISE for the Pribilof Project in January of 2002, while completing his Bachelor of Arts degree in geography, with an emphasis in GIS, at Western Washington University.

Prior to his work with NOAA he worked for five years with a landscape construction company as a heavy equipment operator. During this time, his duties also included surveys for cut/fill grading, supply and sub-contractor coordination, and backup project oversight.

After graduating in March 2002, he began working full time for the Pribilof Project and expanded his role on the project to include both GIS and global positioning system (GPS) duties. Along with providing GIS cartographic support, and data management in the office to assist with environmental restoration activities, he frequently travels to the Pribilof Islands to provide GPS survey support for site remediation activities. The past two years he has provided highly accurate and precise GPS elevation surveys on the groundwater well network on St. George, and St. Paul Island for the development of a groundwater flow model. In the past years, he has taken on a number of additional survey projects around the country, including work for the U.S. Army Corps of Engineers at the Wyckoff/Eagle Harbor Superfund Site on Bainbridge Island, Washington, bathymetric surveying of Bayou LaBranche in Louisiana, and a site characterization survey on Sledge Island, Alaska in coordination with the NOAA Facilities and Logistics Division. He has established survey control for the GPS base station operation on the Pribilof Islands, the Wyckoff-Eagle Harbor Superfund Site, and Bayou LaBranche. His professional experience also includes conducting soil analyses using thin layer chromatography and participating in several conferences pertaining to GIS/GPS.

He maintains a current 40 hr HAZWOPER certificate, as is a certified AHERA Building Inspector and a certified Lead-Based Paint inspector by EPA Region 10 and the State of Washington. He has also received training from ESRI cartographic seminars, and participated in a University of Washington credited extension program on remote sensing.